Appln No. 09/825,775
Amdt date August 13, 2004
Reply to Office action of June 15, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and
listings, of claims in the application:

Listing of Claims:

    1.   (currently amended) A method of determining an end of
a transmitted frame at a receiver on a frame-based
communications network comprising:

    providing an end of frame format for the transmitted frame
having an end of frame plurality of symbols;

    filtering a received transmitted frame using filter
coefficients matched to the end of frame plurality of symbols to
provide a correlation ~~sequence low-pass filtered~~ signal;

    computing a squared magnitude of the correlation ~~sequence~~
signal;

    low-pass filtering the squared magnitude of the correlation
~~sequence~~ signal to provide a low-pass. filtered correlation
signal;

    delaying the low-pass filtered correlation signal to
provide a delayed low-pass filtered correlation sequence signal;

    multiplying the delayed low-pass filtered correlation
signal by a fixed predetermined threshold to provide a
multiplied correlation signal; and

    comparing the multiplied correlation signal with the low-
pass filtered correlation signal to provide a match/no match
comparison indicative of the possible end of a transmitted
frame.

Appln No. 09/825,775
Amdt date August 13, 2004
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2.   (original)   The method of Claim 1, wherein the filtering is linear matched filtering.

3.   (currently amended) The method of Claim 1, wherein the filter coefficients are a time-reversed[[,]] complex-conjugated end of frame symbol sequence.

4.   (original)   The method of Claim 3, wherein the time-reversed complex-conjugated end of frame symbol sequence is a constant-amplitude zero-autocorrelation sequence.

5.   (original)   The method of Claim 3, wherein the time-reversed complex-conjugated end of frame symbol sequence includes complex symbols drawn from a Quadrature Phase Shift Keying or 4-Quadrature Amplitude Modulation constellation.

6.   (currently amended) The method of Claim 1, wherein the multiplying includes first computing 10*log10(.), or an approximation of 10*log10(.), of each low-pass filtered correlation signal operand to provide a plurality of low-pass filtered correlation signal log operands and then adding each of the plurality of low-pass filtered correlation signal log operands.

7.   (original)   The method of Claim 1, wherein the comparing includes performing a comparison a predetermined number of times before an end of a transmitted frame is determined.

-4-

Appln No. 09/825,775
Amdt date August 13, 2004
Reply to Office action of June 15, 2004

8.   (original)   A method of determining an end of a
transmitted frame at a receiver on a frame-based communications
network comprising:

providing an end of frame format for the transmitted frame
having an end of frame plurality of symbols;

linear matched filtering a received transmitted frame using
filter coefficients matched to the end of frame plurality of
symbols to provide a correlation sequence, the filter
coefficients being a time-reversed complex-conjugated end of
frame symbol sequence including complex symbols drawn from a
Quadrature Phase Shift Keying or 4-Quadrature Amplitude
Modulation constellation;

computing a squared magnitude of the correlation sequence;

low-pass filtering the squared magnitude of the correlation
sequence to provide a low-pass filtered correlation signal;

delaying the low-pass filtered correlation signal to
provide a delayed low-pass filtered correlation signal;

multiplying the delayed low-pass filtered correlation
signal by a fixed predetermined threshold by first computing
$10*\log10(.)$, or an approximation of $10*\log10(.)$, of each low-
pass filtered correlation signal operand to provide a plurality
of low-pass filtered correlation signal log operands and then
adding each of the plurality of low-pass filtered correlation
signal log operands to provide a multiplied correlation signal;
and

comparing the multiplied correlation signal with the low-
pass filtered correlation signal to provide a match/no match

-5-

Appln No. 09/825,775
Amdt date August 13, 2004
Reply to Office action of June 15, 2004

comparison indicative of the possible end of a transmitted frame
and performing a comparison a predetermined number of times
before an end of a transmitted frame is determined.

-6-